

Installation & Getting Started Guide

BlackBerry Enterprise Server for Lotus Domino

Version 2.0

BlackBerry™ Enterprise Server Software Installation & User's Guide.
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1

Overview

BlackBerry™ is a mobile email solution that consists of the BlackBerry handheld, docking cradle, BlackBerry Desktop Software, and flat-rate airtime on a nationwide wireless network.

About BlackBerry and the BlackBerry Enterprise Server

The BlackBerry Enterprise Server performs email redirection for all BlackBerry users in an organization. It performs the following functions for each user:

- Monitors the user's inbox for new mail
- Applies filters (defined by the user) to new messages, to determine if and how the BlackBerry service will relay the message to the user's BlackBerry handheld
- Compresses and encrypts new messages and delivers them to the BlackBerry handheld over the Internet
- Receives, over the Internet, messages composed on the BlackBerry handheld, then decrypts and decompresses the messages for the corporate Lotus Domino server to deliver

The BlackBerry Enterprise Server runs as a Lotus Domino Server task that can monitor many users at once over a single administrative connection to the Lotus Domino server. The BlackBerry Enterprise Server maintains a direct TCP/IP connection (Server Routing Protocol or SRP) to the wireless network. This mode of connection requires that you configure your corporate firewall to allow the BlackBerry Enterprise Server to connect through port 3101. This is not a “hole” in the firewall, since only an outbound-initiated connection is required.

Figure 1 shows an example of events that occur when an external email message is sent to a user on the BlackBerry Enterprise Server.

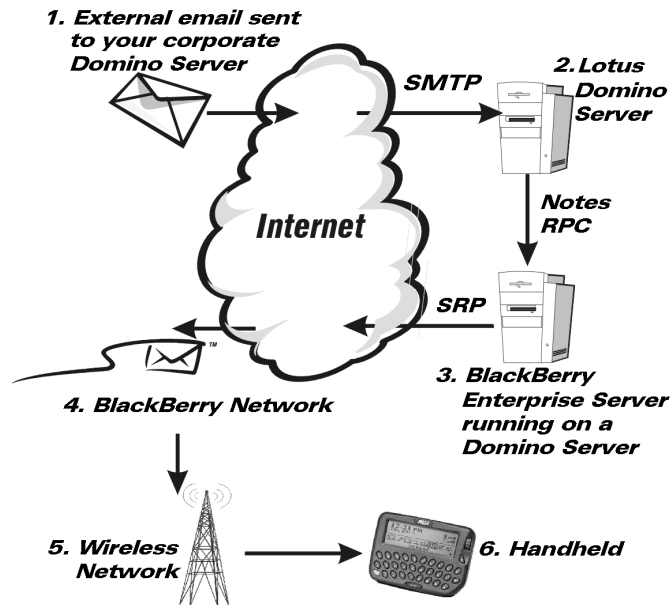


Figure 1: Sample email path with BlackBerry Enterprise Server

About this guide

This *BlackBerry Enterprise Server Software Installation and Getting Started Guide* will help you set up your system for installation, install the server software, and get started with the server administration tools.

Please consult the *BlackBerry Enterprise Server Online Help* (installed with your software) for procedures, tips, and troubleshooting. To open the online guide, click the Help button in any of the BlackBerry Enterprise Server windows.

In your package

Your BlackBerry Enterprise Server package should contain the following:

- BlackBerry Enterprise Server Software CD
- This *BlackBerry Enterprise Server Software Installation & Getting Started Guide*
- SRP Authentication label (located on the CD jewel case)

If any of these components are missing, please contact technical support at 1-887-255-2377 (U.S./Canada).

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Setup and installation

This chapter includes the following components:

- System requirements and pre-installation checklist
- Installing BlackBerry Enterprise Server Software
- Importing system information
- Creating the BlackBerryAdmins group
- Uninstalling BlackBerry Enterprise Server Software

System requirements

The BlackBerry Enterprise Server for Lotus Domino Software requires the following hardware and software components:

Hardware

- PC with an Intel Pentium II processor or compatible (233 MHz or higher, 128 MB RAM, 1 GB hard drive)

Software

- Windows NT® 4.0 server, Service Pack 3 or higher installed
- Lotus® Domino™ Server and Client 4.6 or higher installed (where the Lotus Domino server is in the LocalDomainServers group)

Pre-Installation checklist

Use this checklist to track the specific information required when you install the BlackBerry Enterprise Server. Keep this information for future reference. The information you enter will be required if you need to contact our support department.

Hardware - minimum requirements

- PC with an Intel Pentium II processor or compatible (233 MHz or higher)
- 128 MB RAM.
- 1 GB free disk space
- 10 Mbps LAN connection

BlackBerry Enterprise Server Software

This document assumes that your BlackBerry Enterprise Server for Lotus Domino will be in the same Lotus Notes Named Network as the Lotus Domino mail server.

- Windows NT® 4.0 server, Service Pack 3 or higher installed

- Lotus® Domino™ Server and Client 4.6 or higher installed

- Ensure the Lotus Domino server is in the LocalDomainServers group

Information

You will be asked for the SRP Identifier and the SRP Authentication Key. You can find this information on the label on your BlackBerry Enterprise Server for Lotus Domino installation CD. It is highly recommended that you write down these values in the spaces provided below.

TCP/IP Common Name (the first part of a server name, for example, *Server1*, where the full server name is *Server1/Server/BlackBerry*) or NETBIOS Name of BlackBerry Enterprise Server:

Platform your mail servers run on:

Lotus Notes Organization Name:

System Attendant (name of System Administrator, used for sending email alerts in a valid SMTP address format, e.g. *administrator@rim.net*):

BlackBerry Enterprise Server Installation Folder Location:

default or _____

SRP Host (the SRP Address value provided on your installation CD label): _____

SRP Identifier: S _____

SRP Authentication Key: _____

The authentication key is very long. To simplify installations, upgrades, and reinstalls, create a .txt file containing your authentication key. You can use this .txt file to copy the key and paste it into the **Authentication Key** field. Keep this file in a secure directory.

Lotus Domino Data Directory location:
(for example, C:\Lotus\Domino\Data)

Name of the Name and Address Book (Domino Directory):

Note Your corporate firewall must be able to resolve Internet addresses using DNS.

Firewall configuration

The BlackBerry Enterprise Server initiates connections to the wireless network in an outbound direction. To support BlackBerry in an environment with a firewall in place, the firewall must be configured to allow the computers running BlackBerry Enterprise Server within the company to initiate TCP/IP connections to an outside server listening on port 3101. If the firewall is a proxying

firewall, the proxy must be transparent. Please ensure that your firewall is configured to accommodate these types of connections.

Note A transparent proxy does NOT modify requests or responses through the proxy during proxy authentication and identification, whereas a non-transparent proxy (where the client specifies the hostname and port number of the proxy) IS used to modify requests or responses through the proxy. If you have a non-transparent proxy, the BlackBerry Enterprise Server can be configured to access an internal proxy address which is then translated externally to the SRP Host on port 3101.

Important setup overview

To ensure successful installation and setup of the BlackBerry Enterprise Server, please follow this setup order. (Detailed procedures follow for each step in the overview.)

- Log in with an Administrator account on the Lotus Domino Server where the BlackBerry Enterprise Server will run.
- Install the BlackBerry Enterprise Server software on the Lotus Domino Server that acts as the gateway to the wireless network.
- Create the BlackBerryAdmins group and add administrators to it.
- Start the BlackBerry Enterprise Server service.

Logging in to the Administrator account

1. On the server where the BlackBerry Enterprise Server will run, log in with a Windows NT administrator account to the account you usually use for Administrator-level tasks. This account will be used throughout the installation. For simplicity, we will refer to this account as your “Administrator account”.

The BlackBerryAdmins group will not be created when you install the BlackBerry Enterprise Server; you will need to create a BlackBerryAdmins group in the Name and Address Book (Domino Directory) and add administrators to it.

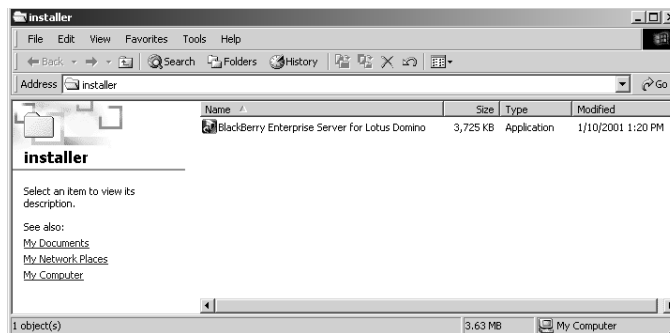
Note You must have Windows NT Administrator privileges as well as Lotus Domino Administrator privileges to log in.

Installing the server

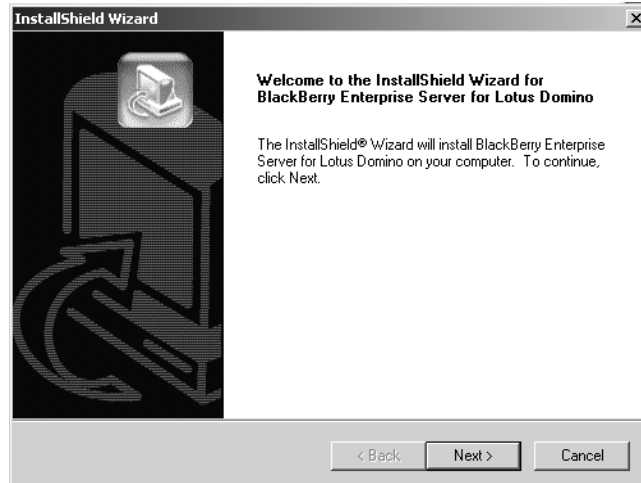
Follow these steps to install the BlackBerry Enterprise Server.

Note For instructions on uninstalling, see “Uninstalling the software” on page 33.

1. Insert the BlackBerry Enterprise Server for Lotus Domino CD into the CD drive of the computer that will run the BlackBerry Enterprise Server.



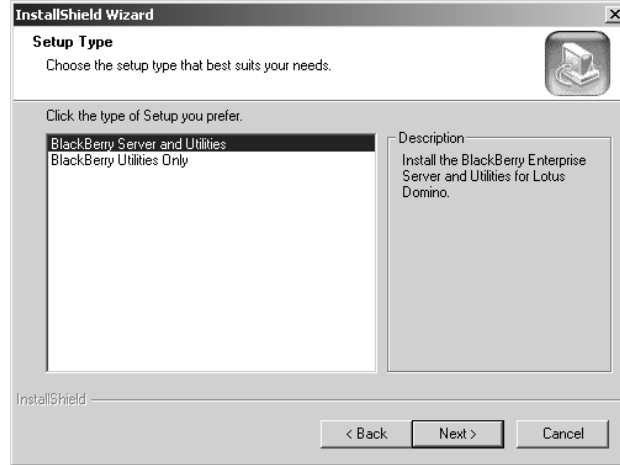
2. Double-click the **Installer** folder to open it. Double-click **BlackBerry Enterprise Server for Lotus Domino** to start installation. A Welcome screen appears.



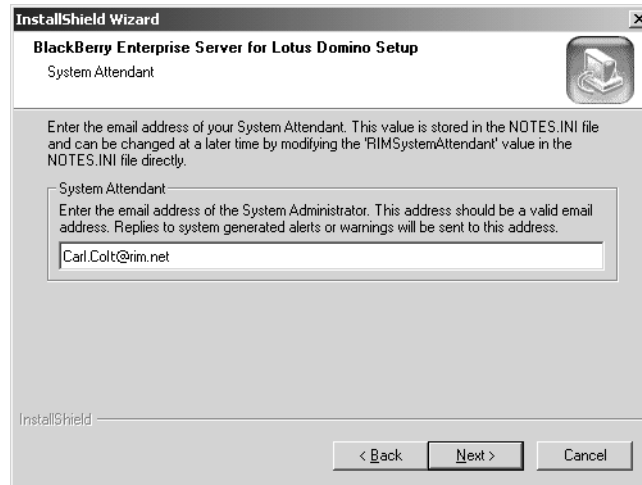
3. Click **Next**. The License Agreement window appears.



4. Please read the license agreement carefully; proceeding with the installation indicates that you accept its conditions. Click **Yes** to continue. The **Setup Type** window appears.

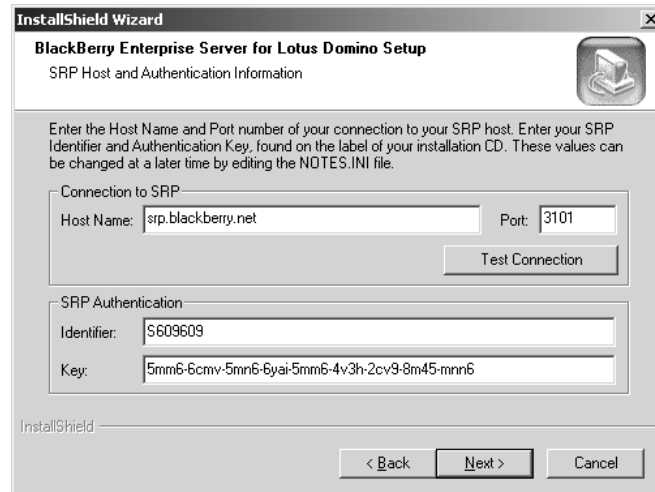


5. To install the BlackBerry Enterprise Server, select **BlackBerry Server and Utilities**. This option installs the BlackBerry Enterprise Server task and the administrator interface. If you are installing a BlackBerry Enterprise Server Administration Console, select **BlackBerry Utilities Only**. This option installs only the administrator interface. Click **Next** to continue. The first **BlackBerry Enterprise Server for Lotus Domino Setup** screen appears.



Note If you want to manage the BlackBerry Enterprise Server from another machine, (running Windows NT with SP3 or higher, or Windows 2000), install the Utilities on that machine as well as on this machine.

6. In the BlackBerry Enterprise Server for Lotus Domino Setup screen labelled **System Attendant**, in the **System Attendant** field, type the email address of the System Administrator. Use a valid email address that can send and receive Alert or Warning messages.
7. Click **Next** to continue. The second **BlackBerry Enterprise Server for Lotus Domino Setup** screen appears.



8. In the BlackBerry Enterprise Server for Lotus Domino Setup screen labelled **SRP Host and Authentication Information**, enter the following values under Connection to SRP:
 - In the **Host Name** field, enter the SRP Address (also referred to as SRP Host) provided on the installation CD label. The *SRP Host* connects to the wireless network. The BlackBerry Enterprise Server can sit anywhere on the LAN and route its TCP/IP traffic through the firewall or

through a transparent proxy server.

Note A transparent proxy does NOT modify requests or responses through the proxy during proxy authentication and identification, whereas a non-transparent proxy (where the client specifies the hostname and port number of the proxy) IS used to modify requests or responses through the proxy. If you have a non-transparent proxy, the BlackBerry Enterprise Server can be configured to access an internal proxy address which is then translated externally to the SRP Host on port 3101.

- In the **Port** field, the SRP Port, configured during the firewall configuration process, is set to 3101, and is typically not changed. This is an outbound-initiated connection. Click **Next** to continue.
9. During your initial installation, click **Test Connection**. The setup program will perform a test to ensure that the server can connect to *SRP Host*.

If the test is successful, messages will confirm your connection. From the DOS prompt, press Enter to continue. Click **OK** to close the message and continue the installation.

If the test is not successful, you will see an error message. Note the error code, and press Enter. Click **OK** in the dialog box to close the error message.

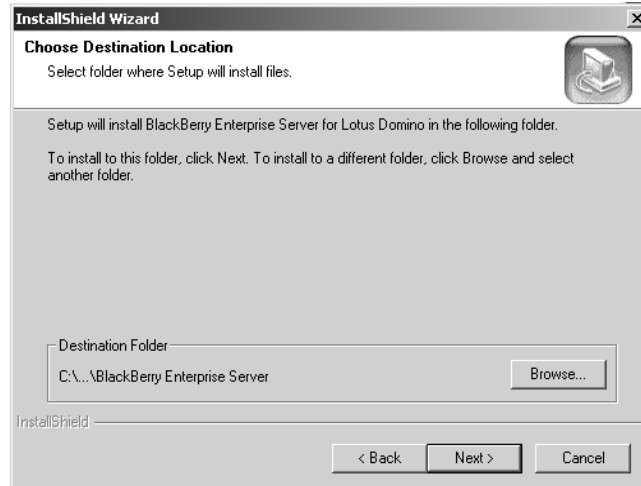
Note If the SRP test is not successful, you will have to stop the installation and correct the reason for the failure before you can restart the installation. See the "Resolving Connection Errors" section of this guide for a list of common errors and suggestions for their resolution.

10. In the SRP Authentication section, enter the **SRP Identifier** and **Authentication Key** obtained from the label on the installation

CD. These values are unique to each host license. Each BlackBerry Enterprise Server requires its own unique SRP Identifier and Authentication Key.

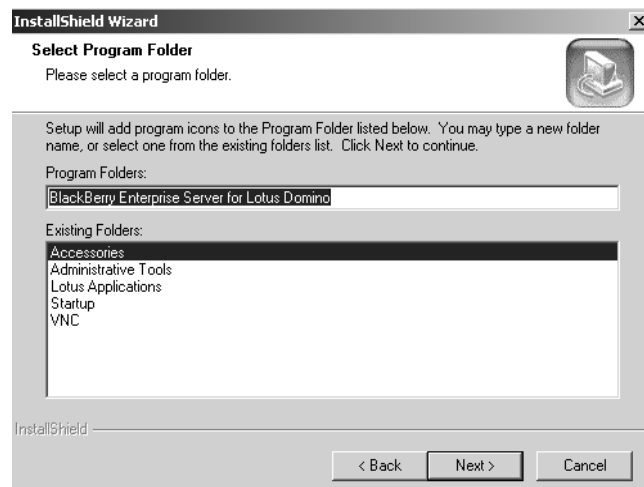
Tip The authentication key is very long. To simplify installations, upgrades, and reinstalls, create a .txt file containing your authentication key. You can use this .txt file to copy the key and paste it into the **Authentication Key** field. Keep this file in a secure directory.

11. Click **Next** to continue.
12. The **Choose Destination Location** window appears. In the **Choose Destination Location** window, ensure that the destination path is correct and click **Next**.

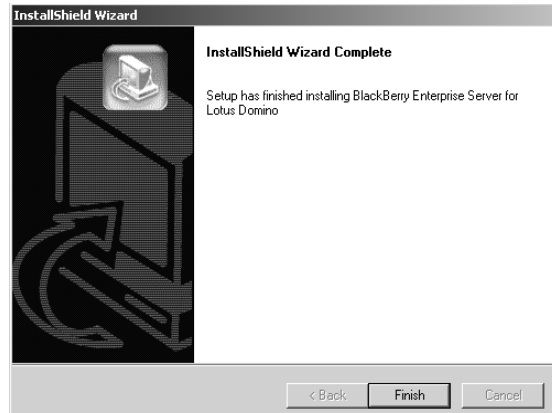


Note The default path for the BlackBerry Enterprise Server is C:\Program Files\Research In Motion\BlackBerry Enterprise Server\

13. In the **Select Program Folder** window, ensure the correct folder is selected and click **Next** to complete the installation.



14. When the installation is complete, you will see a confirmation window.

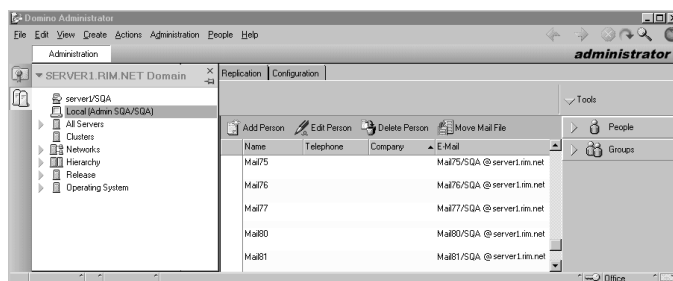


15. Click **Finish** to close the window.

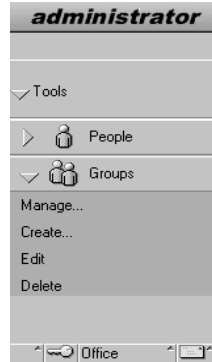
Creating the BlackBerryAdmins group

You must create a BlackBerryAdmins group in the Lotus Domino administration server directory and replicate it in the BlackBerry Enterprise Server Domino directory, then add Lotus Notes users who want to be BESAdmin members directly to the group.

1. From the Domino Administrator, click the appropriate server icon.



2. Select the **People & Groups** tab, then **Domino Directories**. Select the appropriate **Address Book**, then select the **Groups** view.

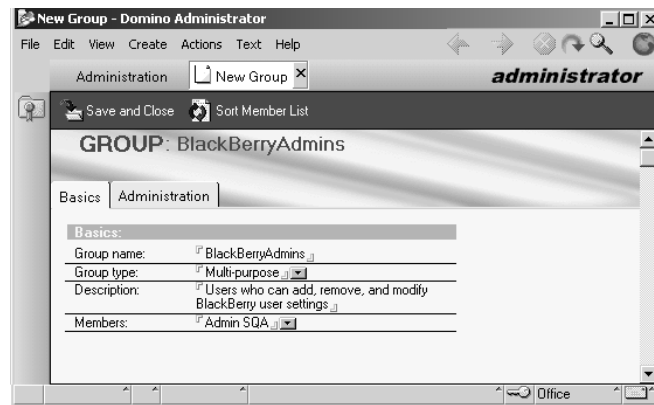


3. In the **Groups** menu list, click **Create** to add the group.
4. Select the **Basics** tab.
 - In the **Group name** field, type:
BlackBerryAdmins

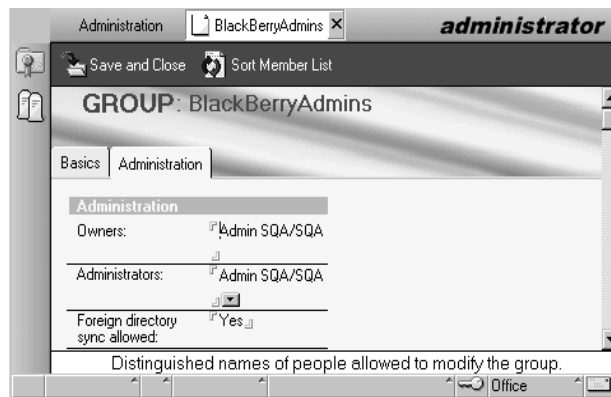
Note This field is case-sensitive; type the name exactly as shown above.

- In the **Group type** field, type or select **ACL**.
- In the **Description** field, type a description that will appear in the view. For instance, you could type the description: **Users who can add, remove and modify BlackBerry user settings.**
- In the **Members** field, select the name of the users who will be administering the BlackBerry Enterprise Server. For example, select **Admin**, or **SQA**.

28 Setup and installation — Creating the BlackBerryAdmins group



5. Select the **Administration** tab.
 - In the **Owners** field, type the names of the users who are allowed to change the group membership.
 - In the **Administrators** field, type the users who are allowed to edit the Group document.
 - In the **Foreign directory sync allowed** field, select **Yes** to enable the group to be copied to foreign directories during synchronization.



6. Select **Save and Close**. The BlackBerryAdmins Group will appear in the Name and Address Book (Domino Directory) on the local Lotus Domino Server.

Adding administrators to the BlackBerryAdmins group

After you installed the BlackBerry Enterprise Server, you created a special Group called the BlackBerryAdmins Group and added it to the Name and Address Book (Domino Directory) on the local Lotus Domino Server. This Group is used to control access to the BlackBerry user accounts and inbound and outbound queue databases. The BlackBerryAdmins Group administrators can access only those databases needed to run and administer the BlackBerry Enterprise Server software.

To add more administrators

1. From the Notes Client on the BlackBerry Enterprise Server, open the Name and Address Book (Domino Directory).
2. Select the **Groups** view, then select **BlackBerryAdmins**.
3. Click **Edit Group**, and then add the users that will be Administrators for the BlackBerry Enterprise Server.
4. Add the LocalDomainServer group. Ensure that the Lotus Domino server that has the BES add-in task is already in the LocalDomainServer's group.

Starting the server add-in task

Once the server has been created, and the BlackBerryAdmins group added, start the BlackBerry Enterprise Server.

In the Lotus Server Console on the BlackBerry Enterprise Server machine, type **load BES** or restart the Lotus Domino server. Since the BlackBerry Enterprise Server is an add-in task to the Lotus Domino Server, the Notes.ini file has been modified to include a startup task called BES. This service supplies email redirection.

Changing the polling interval

The Polling Interval value determines how often the BlackBerry Enterprise Server will scan each user's mailbox for new mail. The lower the value, the more often scanning will occur. A very low value will place an added load on system resources. The default value is 20 seconds. You can change the value in the Notes.INI file or using BESAdmin. You must restart the BES add-in task for the change to take effect.

Resolving Connection Errors

Use the suggestions below to resolve connection errors if the srptest portion of your installation fails.

Error code 10060

Error code 10060 generates these messages:

```
"C:\>bbsrptest srp host"  
"Attempting to connect to srp host (206.51.26.33), port 3101"  
"connect() failed: error code = 10060"
```

Error code 10060 indicates that the connect request is not being answered, or that the firewall has lost the connection request. Error 10060 is a timeout error.

If your firewall has been configured to proxy connections on port 3101 to *srp host*, try using the proxy to connect. To do this you must know the internal IP address of the firewall or the proxy server through which you are trying to send the request. For example, if the IP address of the firewall/proxy server is 192.168.0.1, you would type:

```
bbsrptest 192.168.0.1
```

The program will try to connect to *srp host*. You should see the following response:

```
"Attempting to connect to 192.168.0.1 (192.168.0.1), port 3101"  
"Sending test packet"  
"Waiting for response"  
"Receiving response"  
"Checking response"  
"Successful"
```

Once you receive the "Successful" message, you are ready to begin your installation.

Error code 10061

Error code 10061 generates this message: "connect() failed: error code = 10061"

Error code 10061 indicates that the connection was refused. Either the SRP server is not running, or more likely, the firewall prevented the connection from being completed.

To resolve this error, check with your firewall administrator to ensure that an outbound connection from the machine you are using to *srp host* on port 3101 is allowed.

Connection lost

The "connection lost" error generates this message: "recv(): connection lost."

This message indicates that the connection was broken by the firewall or proxy before the test program could connect with the SRP server.

To resolve this error, check with your firewall administrator to ensure that an outbound connection from the machine you are using to *srp host* on port 3101 is allowed.

Error code 11001

Error code 11001 generates this message: "Connect () failed: error code = 11001."

Error code 11001 indicates that the DNS cannot locate the *SRP Host* address.

To resolve this error, ensure that your DNS settings are correct on the machine you are using, then open the Command prompt and type:

ping SRP HOST.

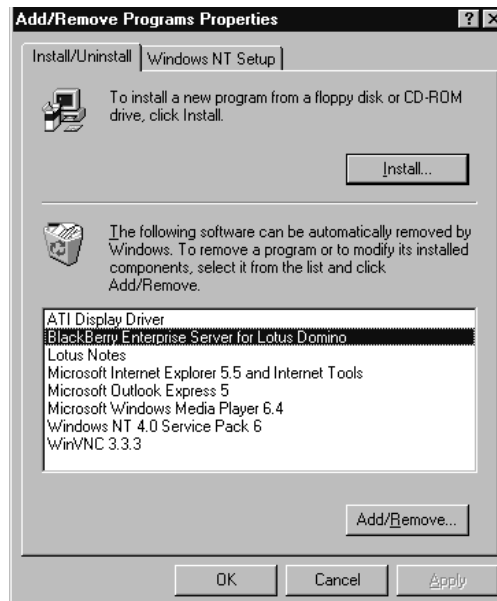
You should receive an IP resolution on the name. If you do not, your DNS settings must be corrected. (The ping will not be returned. This is normal.)

Uninstalling the software

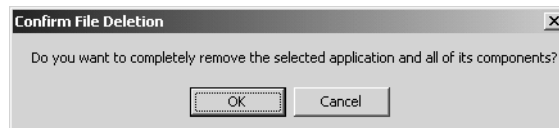
To uninstall the BlackBerry Enterprise Server, follow these steps.

1. From the Lotus Domino Server console screen, type:
tell BES Quit
2. Uninstall the Blackberry Enterprise Server by selecting **Start> Settings> Control Panel> Add/Remove Programs**. An Add/Remove window appears.

3. In the Add/Remove Programs Properties window, select **BlackBerry Enterprise Server for Lotus Domino** and click **Add/Remove**. A Confirm File Deletion dialog appears.

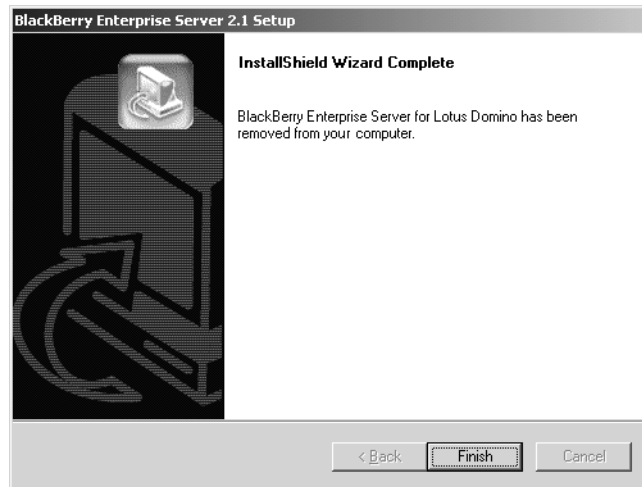


4. Click **OK** to remove the BlackBerry Enterprise Server software.



BlackBerry Enterprise Server Software for Lotus Domino

5. A confirmation window will appear when all programs have been successfully removed.



Note Uninstalling the application does not remove the user configuration and message queue databases. If you wish to remove these as well, these items can be found in the BES folder in the Lotus Domino Server's data directory.

3

Administration tasks

You can perform user- and handheld-oriented administrative functions through the BESAdmin utility. This tool was installed if you selected **Utilities** during installation.

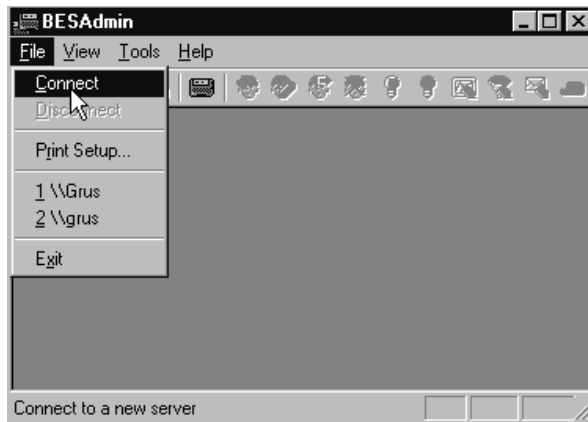
Note If the Utilities were not selected during installation, you can go back to the installation procedure and install the utilities without having to re-install the service.

Opening the BESAdmin window

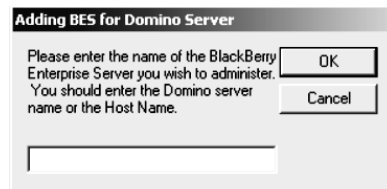
The install process placed a file named BESAdmin.exe in the folder \Program Files\Research In Motion\BlackBerry Enterprise Server. There are several ways to start this file: by creating and launching a shortcut, by using a quicklaunch, by using Windows explorer, or by clicking **Start> Program Files> BlackBerry Enterprise Server for Lotus Domino> BlackBerry Server Management**. Starting this file will establish your connection to the BlackBerry Enterprise Server (or servers, if you are using more than one).

To open the BESAdmin window

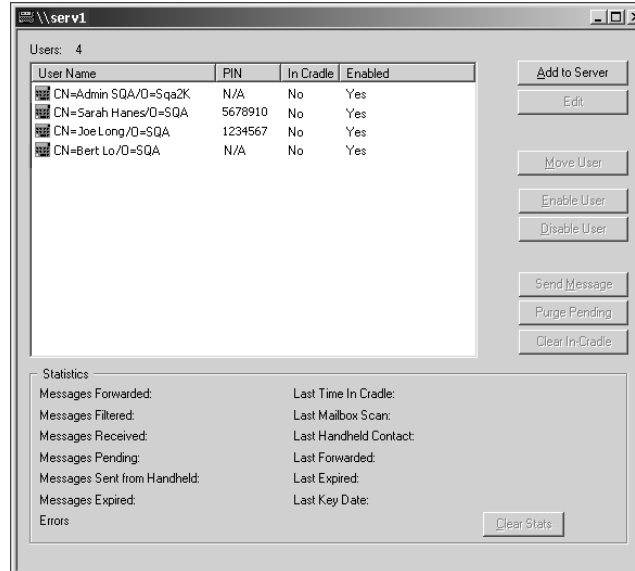
1. In the BlackBerry Enterprise Server main menu, click **File> Connect**. The Adding BES for Domino Server dialog box appears.



2. In the dialog box, type the common name or NETBIOS name of the server to which you want to connect (for example, *Server1*, where the full server name is *Server1/Server/BlackBerry*). Click **OK**. You will be prompted for a password.



The BESAdmin window appears. You are now able to administer users.



Connecting a handheld to the cradle

System administrators can use the cradle to add users, assign PIN numbers, and generate encryption keys.

Note Please ensure that you use only the cradle provided by Research In Motion.

To connect the handheld

1. Connect the cradle cable to the COM port on the machine running BESAdmin.



Secure the pager-sized handheld in the cradle by inserting the connector port on the bottom edge of the handheld into the connector prongs of the cradle. Then click the top of the handheld into the cradle.



Secure the palm-sized handheld in the cradle by inserting the connector port on the bottom edge of the handheld into the connector prongs of the cradle and press firmly in place.

2. In the BESAdmin window, click **Tools**. Click **Settings** to open the Settings window.
3. The Settings window will show you the COM port being used to connect the cradle. Click **Detect**. You will receive the following message: "Please ensure your handheld is securely connected." Click **OK**.
4. When the handheld is detected, you will see a message similar to "Located a handheld device attached to your computer on COM1." Click **OK** to close the message and **OK** again to close the Settings window.

Note If the machine cannot detect the handheld on a COM (serial) port, the message "Unable to locate a handheld device attached to your computer" will appear. Check that the handheld and cradle cable both appear to be connected securely. If the error message still appears, ensure that no other devices are sharing the serial port.

Removing a handheld from the cradle



To remove the pager-sized handheld from the cradle, brace the bottom of the cradle with one hand and gently pull the top of the handheld towards you.



To remove the palm-sized handheld from the charging cradle, brace the bottom of the cradle with one hand and gently pull the handheld up out of the cradle.

Adding users

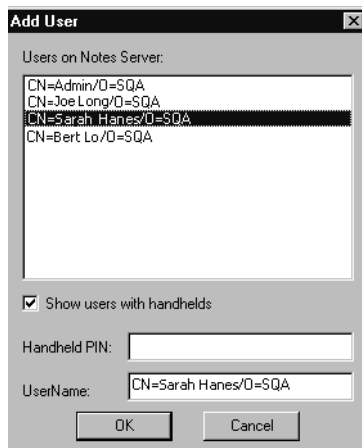
One of the BESAdmin tool's primary functions is to add a handheld to a BlackBerry Enterprise Server. You can add a user with or without a personal identification number (PIN). To add a user and a PIN at the same time, see "Adding a user and a PIN" on page 42.

Note Users must be registered on the Lotus Domino Server before they can be added to the BlackBerry Enterprise Server. Refer to your Lotus Domino documentation for details on user registration.

To add a user

1. In the BESAdmin window for the appropriate BlackBerry Enterprise Server, click **Add to Server**. A list of all users in the default Name and Address Book (Domino Directory) will appear. (This directory contains the names of registered Lotus Notes users.)

Note For email redirection to function properly, the Lotus Domino Server that has the BES add-in task must have the Server-Manager- and Delete-permissions in the Access Control List (ACL) of the users' mail file.



2. Select the name of the user to be added and click **OK**. You will see a “successfully added” message. Click **OK** to close the message.

Adding a user and a PIN

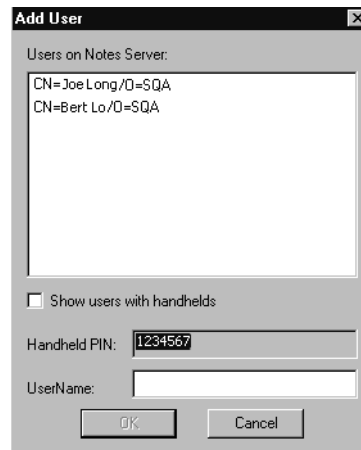
You can attribute the handheld’s PIN to a specific user when you add the user to the BlackBerry Enterprise Server. If you haven’t already done so, connect the cradle to a COM port at the PC, ensuring that it has been detected by the server. (For details, see “Connecting a handheld to the cradle” on page 39.)

Note Users must be registered on the Lotus Domino Server before they can be added to the BlackBerry Enterprise Server. Refer to your Lotus Domino documentation for details on user registration.

1. In the BESAdmin window for the appropriate BlackBerry Enterprise Server, click **Add to Server**. A list of registered Lotus Notes users appears.

2. Place the user's handheld in the cradle. The server will detect the handheld and automatically add the PIN to the Handheld PIN field.

Note While the BESAdmin is running, ensure that the BlackBerry Desktop Manager is not running on the same machine.



3. Select the name of the user to be added and click **OK**. A dialog box appears asking if you would like to generate an encryption key for the handheld. Click **Yes**.
4. You will be prompted to generate an encryption key. Move the mouse as requested. You will receive a "successfully added" message. Click **OK** to close the message. The handheld is now ready to use.

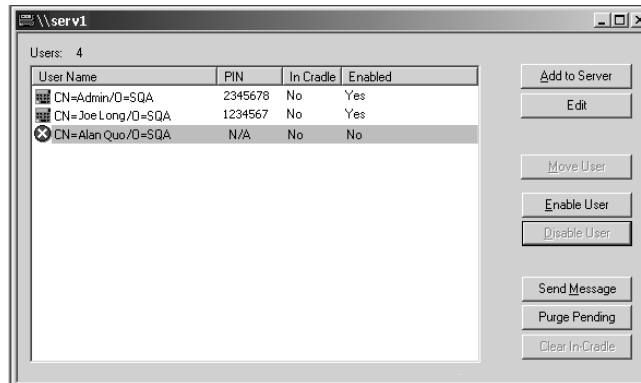
Note If the user's name is identified as a previous BlackBerry user, you will not need to update the encryption key.

Enabling and disabling a handheld

The BlackBerry Enterprise Server lets you disable or enable a handheld without actually removing that user from the server. You may want to use this function if, for example, a user is traveling out of coverage for an extended period and does not want any messages forwarded to the handheld during that time. Instead of removing the user from the server, you can disable that particular handheld while the user is out of coverage and enable the handheld when the user returns to an area with coverage.

To enable a handheld

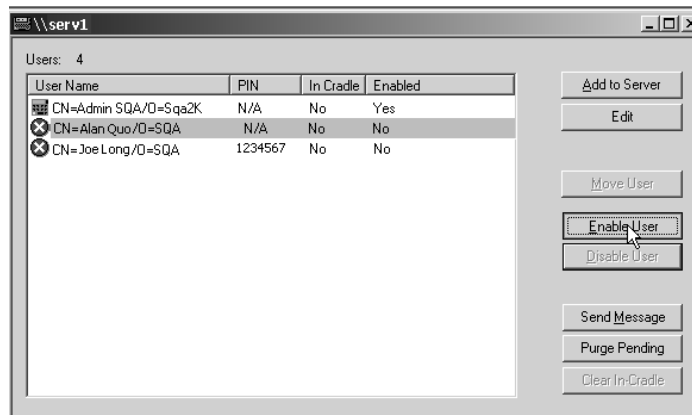
1. In the BESAdmin window, select the BlackBerry Enterprise Server where the user is enabled.
2. Select the user. Click **Enable User** to activate the user's handheld for email redirection.



3. You will be asked for confirmation. Click **Yes**. The Enabled column for the user changes from No to Yes.

To disable a handheld

1. In the BESAdmin window, select the BlackBerry Enterprise Server where the user is enabled.
2. Select the user. Click **Disable User** to prevent email from being forwarded to the user's handheld.
3. You will be asked for confirmation. Click **Yes**. The Enabled column for the user changes from Yes to No and the icon in the User Name column changes.



To remove a user

You can remove a user from a BlackBerry Enterprise Server using the BESAdmin tool.

1. In the BESAdmin window, select the BlackBerry Enterprise Server where the user is registered.
2. Select the user. Click **Remove from Server** to remove all of the user's BlackBerry information.
3. You will be asked for confirmation. Click **Yes**. The user is removed from the BESAdmin window and you receive a "successfully removed" message. Click **OK** to close the message.

WARNING Once a user is removed, the user's encryption key, filters and statistics are permanently deleted.

Purging pending messages

Some situations may arise where it is necessary for you to purge any messages that are pending to a particular handheld.

To purge all messages

1. In the BESAdmin window, select the BlackBerry Enterprise Server where the user is registered. Select the user, and click **Purge Pending**.
2. You will be asked for confirmation. Click **Yes**. The messages waiting to be sent to that handheld are removed from the local queue, although they will still appear in the user's Inbox. (Messages already waiting on the wireless network will be not be purged.) You will receive a "cleared pending messages" notification. Click **OK** to close the message.

Clearing in-cradle status

By default, email will not be redirected to the handheld as long as it is in the cradle. Occasionally, an interruption in network communications may prevent the BlackBerry Desktop Manager from clearing the in-cradle status after the handheld has been removed from the cradle. If this happens, messages will not be forwarded to your handheld until you clear the in-cradle status.

1. In the BESAdmin window, select the BlackBerry Enterprise Server on which the user is registered.
2. Select the user. Click **Clear In-Cradle**. You will be asked to confirm your request. Click **Yes**. The status in the In-Cradle column changes to No for the user and email redirection resumes.

Generating encryption keys

In the BlackBerry encryption model, only the handheld and the desktop know the encryption key. If the user does not have the BlackBerry Desktop Software installed, you can generate a key at the server level.

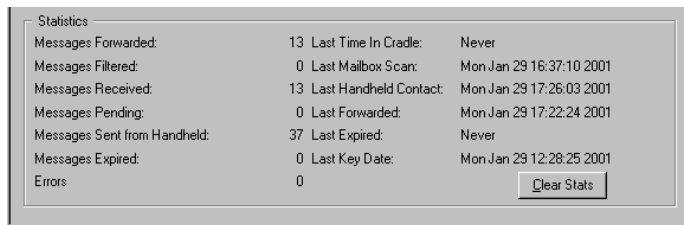
1. Insert the user's handheld into the cradle that is connected to the server. The status should change to Connected and the handheld's Personal Identification Number (PIN) will appear.
2. In the BESAdmin window, select the BlackBerry Enterprise Server on which the user is registered. Select the user, then click **Edit/Generate**.
3. The application will ask if you want to generate a new encryption key. Click **Yes**. The application will prompt you to move your mouse around to generate a new encryption key for the handheld. Move your mouse as requested.

Monitoring email statistics

The BESAdmin tool reports on each user's email flow from server to handheld. The information in the Statistics fields lets you verify that the server is redirecting email properly.

To monitor statistics

1. In the BESAdmin window, select the BlackBerry Enterprise Server on which the user is registered.
2. Select the user. The user's statistics are shown at the bottom of the window.



The screenshot shows a window titled "Statistics" with a table of email flow metrics. The table has three columns: the metric name, the count, and the last time the event occurred. A "Clear Stats" button is located at the bottom right of the table.

Metric	Count	Last Time
Messages Forwarded:	13	Last Time In Cradle: Never
Messages Filtered:	0	Last Mailbox Scan: Mon Jan 29 16:37:10 2001
Messages Received:	13	Last Handheld Contact: Mon Jan 29 17:26:03 2001
Messages Pending:	0	Last Forwarded: Mon Jan 29 17:22:24 2001
Messages Sent from Handheld:	37	Last Expired: Never
Messages Expired:	0	Last Key Date: Mon Jan 29 12:28:25 2001
Errors	0	

Reading the status fields

In the BESAdmin window, each user will have a set of properties (found in the Properties window). The BlackBerry tab in this window displays numbers, dates and times to indicate the stage and status of email for that user.

The following table explains the type of information displayed in each field.

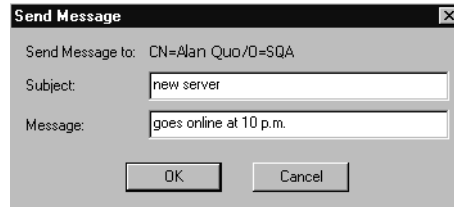
Field	Description
Messages Forwarded	The number of messages that have been forwarded to the handheld. This field is updated automatically as new messages are forwarded. The messages that are forwarded depend on the filters set by each user at the desktop.
Messages Filtered	The number of messages that were not sent to the handheld because of the filters enabled in the BlackBerry Desktop Manager.
Messages Received	The number of messages that have been received by the handheld.
Messages Pending	The number of messages being held until the handheld is turned on or returns to coverage. When the handheld is active again, the messages are sent.
Messages Sent from Handheld	The number of messages sent from the handheld. This field is updated automatically as new messages are sent

Messages Expired	Number of messages that have timed out on the wireless network. This usually occurs after 7 days.
Errors	Number of messages that failed to be delivered.
Last Time in Cradle	Last time the handheld was placed in the cradle.
Last Mailbox Scan	Date and time of the last new message in the Inbox that was forwarded to the wireless network.
Last Handheld Contact	The length of time that has passed since the last message was forwarded to the handheld.
Last Forwarded	Date and time that the last message was forwarded to the handheld
Last Expired	Date and time of last expired message
Last Key Date	Date and time last encryption key was generated.

Sending a message to one user

If you wish to send an email message to any handheld user on a BlackBerry Enterprise Server, you can do so from the BESAdmin tool.

1. Ensure that you are connected to the server. In the BESAdmin window, select the BlackBerry Enterprise Server on which the user is registered. Select the user.
2. Click **Send Message** to open the Send Message window.



3. Type information into the **Subject** and **Message** fields of the window, and click **OK**. The message will be sent to the recipient's Inbox, and proceed to that person's handheld. You will receive a "successful" message. Click **OK** to close the message.

Tip You can send an All Points Bulletin from the BlackBerry Enterprise Server's Tools window. See page 58 for more information.

Changing a user's handheld

If the user receives a different handheld, you must register the new handheld's PIN for proper email redirection. If the user does not have access to the BlackBerry Desktop Manager, you must register the new handheld through the BESAdmin tool.

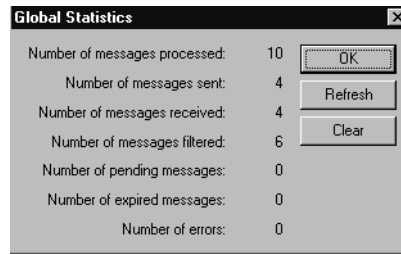
1. From the BESAdmin window, select the BlackBerry Enterprise Server on which the user is registered. Select the user.
2. Place the new handheld in the cradle, connected to the server. When the application detects the handheld, it will prompt you to confirm that you want to assign the new PIN to this user. Click **Yes**. The application will prompt you to generate a new encryption key by moving your mouse around the screen. Move your mouse as requested. You will receive a "successful" message when the new key has been generated. Click **OK** to close the message.

Viewing global statistics

You can view the combined statistics of all handhelds on a particular BlackBerry Enterprise Server.

To view global statistics

In the BESAdmin window, select **Tools > Global Statistics**. The Global Statistics window appears.



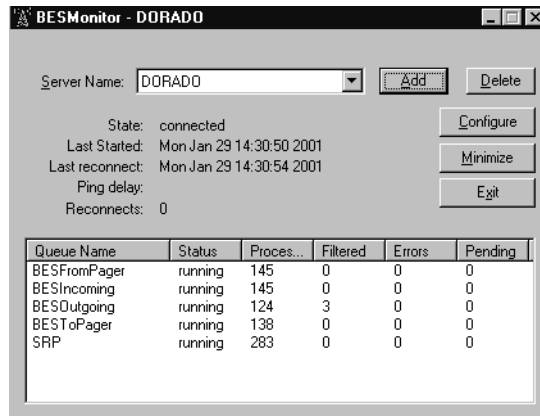
Viewing statistics by queue

You can view the combined statistics of all handhelds on a particular BlackBerry Enterprise Server organized by queue.

To view statistics by queue

In the Start menu, select **Programs > BlackBerry Enterprise Server for Lotus Domino > BlackBerry Server Monitor**. The BESMonitor window appears. If necessary, select the BlackBerry Enterprise Server to be monitored from the drop-down list in the **Server Name** field.

Note If the name of your server does not appear in the list, click **Add**. The Adding BES Server dialog box appears. Type the name of the server into the box and click **OK**.

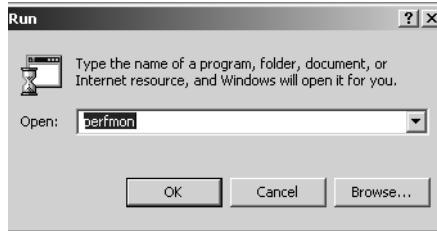


Note If the name of your server does not appear in the drop-down list in the Server Name field, click **Add**. The Adding BES Server dialog box appears. Type the name of the server into the box and click **OK**.

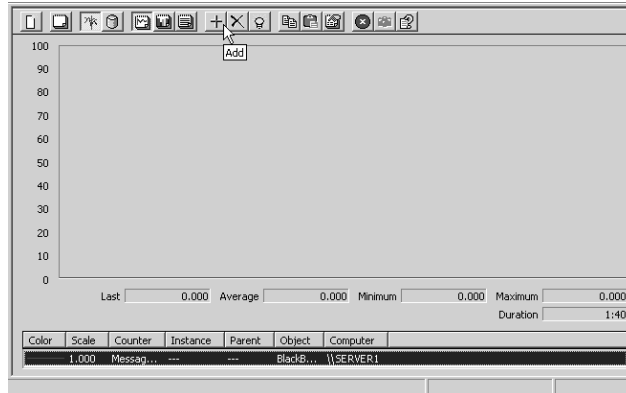
To view Global Stats in Performance Monitor

Performance Monitor allows you to view dynamic global statistics. The statistics available in Performance Monitor are the same as those listed under “Viewing Global Statistics”, but they also show the SRP connection state.

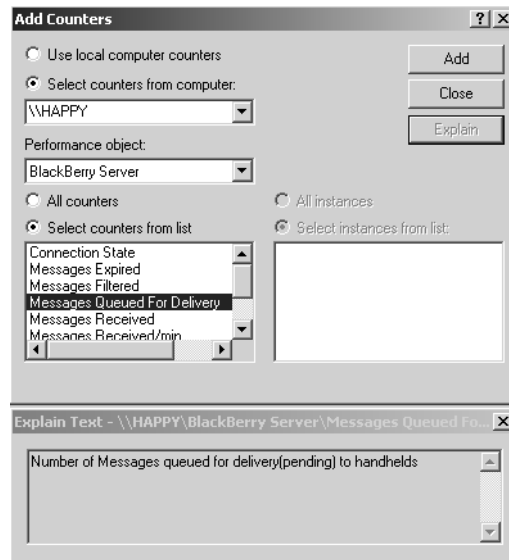
1. From the **Start** menu, select **Run**. In the **Open** field, type **perfmon** and click OK. The Performance window opens.



2. In the Perfmon tool bar, click the **Add** icon (a + sign). The Add Counters window opens.



- In the Performance Object field, select **BlackBerry Server** from the drop-down list.



- Either click **All Counters** or click **Select counters from list** to select individual counters from the drop-down list.

Note To see a description of each counter, click **Explain**. To remove a counter from those you are using, select the counter from the list at the bottom of the Performance window and press **Delete** on your keyboard.

To view Global Stats in SNMP

SNMP also allows you to view dynamic global statistics. The statistics that you can view in SNMP are the same as the ones listed under “Viewing Global Stats”.

Viewing Global Stats in SNMP has the following requirements:

- an SNMP service running
- a third-party SNMP Browser that is capable of compiling the .mib file that is included in the installation package.

4

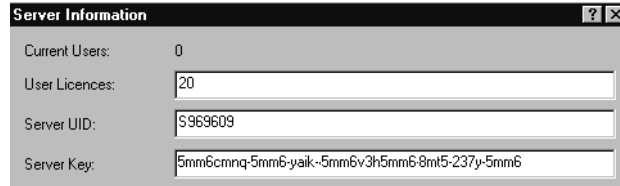
Server-level administration

You can administer tasks that affect all users from the BESAdmin window.

Adding handheld licenses

The License Manager tracks BlackBerry client licenses. Each time you open and exit the Add Users window, the License Manager will tell you if you require more licenses. Once you've purchased more licenses, you should use the License Manager to record the number of additional licenses you have purchased.

1. In the BESAdmin window, connect to the appropriate server.
2. Click **Tools** and then click **License Manager** to open the License Manager window. Type the updated number of licenses in the User Licenses field and click **OK**.
3. You will receive a message: "You have changed the configuration of this server. Would you like to apply the changes to the server?" Click **Yes** to update your license information.



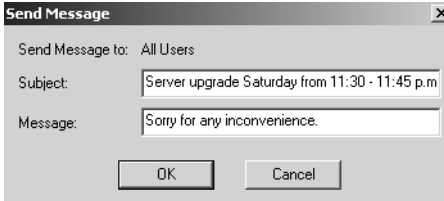
WARNING Some of the information in the Server Information window (such as the SRP information) is unique to your installation. Changing any of the information in the SRP Identifier or SRP Authentication fields changes the routing information for all users on the server and requires each user to generate a new encryption key.

Sending an All Points Bulletin

Use the All Points Bulletin (APB) feature to send an email message to multiple handheld users. You can choose to send your message to all users on a specific server, or to all users on all your BlackBerry Enterprise Servers.

Note You can send a message to an individual handheld user from the BESAdmin window, by selecting the user and then selecting **Message**.

1. In the BESAdmin tool, select the BlackBerry Enterprise Server associated with the message recipients.
2. Click **Tools** and then click **APB**. The Send Message window appears.



3. Type information into the Subject and Message fields of the window and click **OK**. The message will be sent to the users associated with the server that you've specified.

5

BESMonitor and BESAlert


The BESMonitor program is installed automatically when you select Utilities during installation. This program can be installed on the BlackBerry Enterprise Server or on another computer, and can be used to monitor multiple BlackBerry Enterprise Servers.



By default, the BlackBerry Enterprise Server records significant events in the Notes Event Log under Miscellaneous Events. These events include errors, warnings, and various types of information levels.

The BESAlert tool watches the Windows NT Event Log, and can be configured to send you a copy of events whenever an error, warning or information event is recorded. Since registry settings can be used to determine the level of event to be recorded, these settings may also affect the operation of the BESAlert tool.

Checking server status

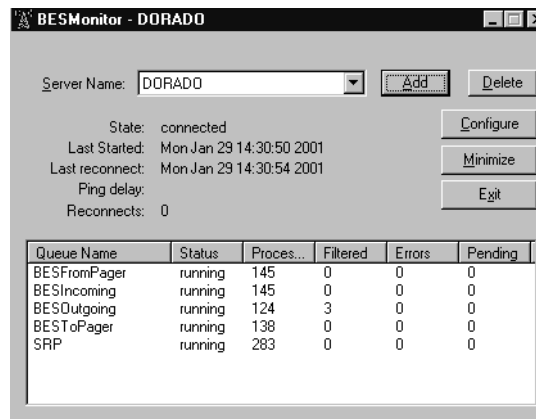
When BESMonitor is running, an icon appears in the Systray (lower-right of screen.) Holding your mouse over the icon displays the BlackBerry Enterprise Server status as a tooltip.

Icon	Tooltip appearing with mouseover	Description
	BES Monitor [name of server]: connected	Server is running

Icon	Tooltip appearing with mouseover	Description
	BES Monitor [name of server]: disconnected	Server is running, but the SRP connection is down
	BES Monitor [name of server]: disabled	Server is not running

Note For information on what to do when your SRP connection is lost or your server is not running, consult the FAQ chapter of this guide.

It is possible to monitor the BlackBerry Enterprise Server using the BESMonitor icons. If you double-click the icon, a dialog box opens to show the name of the server being monitored, its status, and its global statistics.

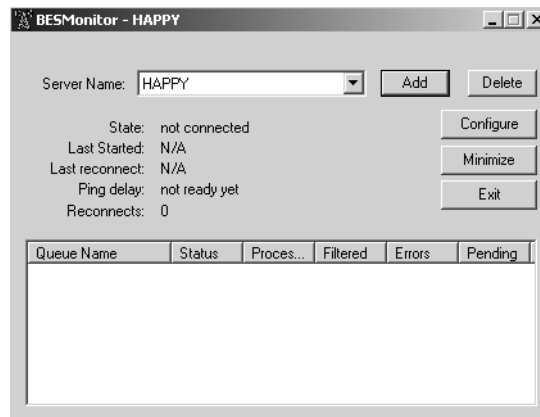


Configuring BESAlert

You can configure the BESAlert program to send you a copy of events whenever an Error, Warning or Information event (with event ID 5) is logged.

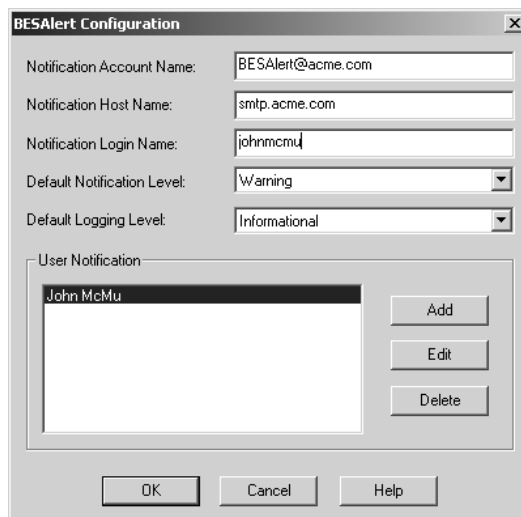
To configure BESAlert notifications

1. To open the BESMonitor window, click **Start > Programs > BlackBerry Enterprise Server for Lotus Domino > BlackBerry Server Monitor**.



2. Click **Configure** to open the BESAlert Configuration window.

Note If the Server Name field is empty, click **Add**. In the resulting dialog, type the name of the server to be monitored and click **OK**.



3. In the **Notification Account Name** field, type the full SMTP address from which the BESAlert messages will be sent (for example, BESAlert@acme.com).
4. In the **Notification Host Name** field, type the name of the machine on which the SMTP server is running (for example, smtp.acme.com).
5. Some servers require a Windows NT account name (in addition to an SMTP address and a machine name) to be able to send BESAlert messages. Type the Windows NT account name into the **Notification Login Name** field if your server requires it. (For example, type the name you use to log into your Windows NT machine.)
6. Each significant event that is logged and sent to administrators can be sent to multiple destinations. The **User Notification**

section lists the destinations or users who will receive these event reports. To add new names to the User Notification list, click **Add**; to update names currently in the User Notification list, click **Edit**. The User Configuration window appears.

The screenshot shows a 'User Configuration' dialog box with the following fields and values:

- Name:** John McMu
- Email address:** jmcmu@acme.com
- Console name:** (empty field)
- Notification Level:** Default (dropdown menu)

Buttons: OK, Cancel

7. In the **Name** field, type the user or machine name as you'd like it to appear in the User Notification list (a simple alias is sufficient).
8. Each destination in the list can have an associated email address, a popup console specification, or both. In the **Email address** field, type the destination email address to be used when sending notifications to this particular user.
9. In the **Console name** field, type the name of the machine on which the popup message is to be displayed. Click **OK** to close the window.
10. If necessary, repeat steps 6-9 to add more names to the User Notification list. Click **OK** to close the BESAlert Configuration Window.

6

Frequently asked questions

For additional support:

- Email: support@blackberry.net
- Phone: 1-887-255-2377 (U.S. and Canada)
- Web: www.blackberry.net (for general information about the BlackBerry Wireless Email Solution)

What should I do when the BESMonitor status shows “SRP Connection Down”.

Symptoms

The BESMonitor icon in the Windows SysTray indicates that BlackBerry Enterprise Server status is SRP Connection Down.

Problem

While the BlackBerry Enterprise Server is running, the SRP (the link to the wireless network) is disconnected.

Solution

You should check that DNS is set up properly on the server machine. It may not be able to resolve or find SRP HOST (indicated in italics because the value is variable), which is the Network Address Node specified during installation. To find out where the connection process is failing, run the BBSRPTEST utility.

1. Copy bbsrptest.exe to the machine that is running BlackBerry Enterprise Server.
2. Open a command prompt and run the program with one additional parameter: bbsrptest srphostname. (Refer to your Installation Check List on page 11, under “SRP Host” for your hostname information.) The utility will read the settings from the registry and attempt to connect to the SRP host server.

What you *should* see is:

- **Attempting to connect to *srp host (IP Address)*, port 3101 Successful**

where *srp host* and *IP Address* are indicated in italics because the values are variable; see the label on your installation CD for the correct SRP Host value and IP Address.

You may see one of the following messages instead:

- **gethostbyname() failed for name *srp host* error code = 11001**
This message indicates a configuration problem on your machine, as it is unable to look up the *SRP host* server's name. Error 11001 means name not found.
- **connect() failed: error code = 10060**
This message indicates that the connection request is not being answered, or that the firewall “lost” the connection request. Error 10060 means a timeout.
- **connect() failed: error code = 10061**
This message indicates that the connection was refused; either the *SRP host* server is not running or the firewall prevented the connection from going through. Error 10061 means that the connection was refused.
- **recv(): connection lost**

This message indicates that the connection was broken (by the firewall or proxy) before the test program could connect to the *SRP host* server. The error code that is listed is the Winsock error code.

Why isn't this laptop user's handheld receiving messages?

Symptoms

The laptop user's handheld has not received email messages since the laptop was last connected to the LAN.

Problem

If the user is running BlackBerry Desktop Software on a laptop connected to a LAN, and the handheld is connected to the laptop, the user must exit the BlackBerry Desktop Manager before disconnecting the laptop from the LAN.

If the user does not remove the handheld from the cradle (or exit the Desktop Manager) before disconnecting the laptop from the LAN, the server will not be notified that the handheld is no longer in the cradle. Therefore, if the "don't forward messages while the handheld is in the cradle" option is turned on, no email will be forwarded to the handheld as the server believes it is still in the cradle.

Solution

Instruct the user to connect to the LAN again. Start the BlackBerry Desktop Manager and connect the handheld to the PC. Then remove the handheld from the cradle and exit the BlackBerry Desktop Manager.

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